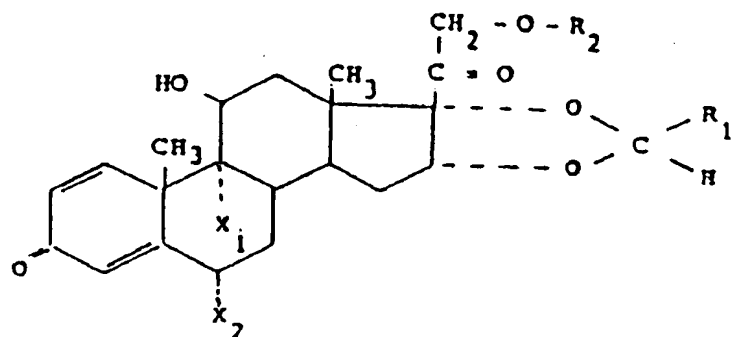


In the Claims:

1. A compound of the formula



in the form of an R epimer, an S epimer, or a stereoisomeric mixture of the R and S epimers in terms of the orientation of the substituents on the carbon atom at position 22, wherein:

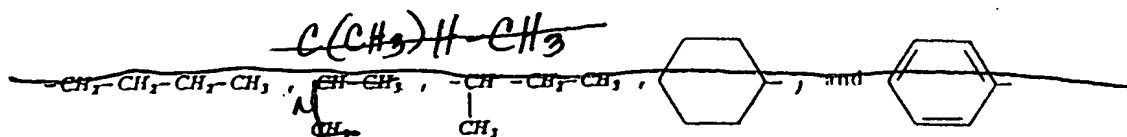
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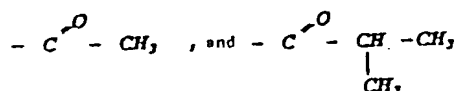
E

cyclohexyl,

~~R₁ is a member selected from the group consisting of~~



R₂ is a member selected from the group consisting of



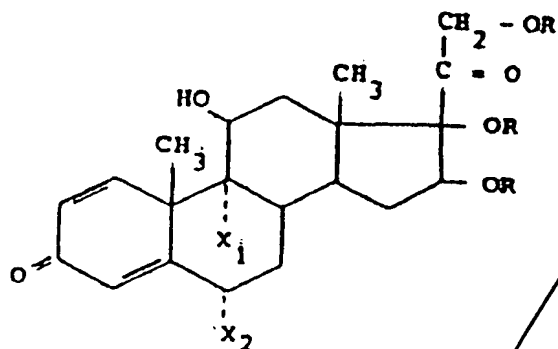
and wherein X₁ and X₂ may be the same or different and each is a member selected from the group consisting of hydrogen and fluorine.

10

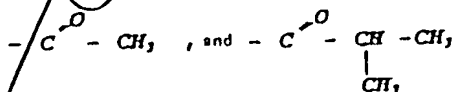
2. A compound according to claim 1 in the form of the (22S)- epimer.

3. A compound according to claim 1 in the form of the (22R)- epimer.

4. A process for the preparation of compounds of claim 1, comprising the steps of hydrolysis-ketalization of a compound of formula

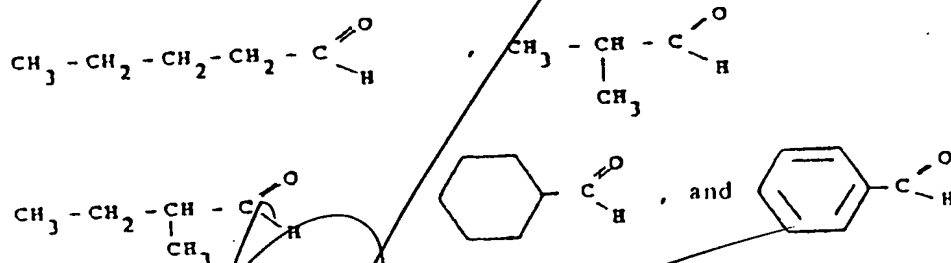


5 wherein R is a member selected from the group consisting of



and wherein X₁ and X₂ may be the same or different and each is a member selected from the group consisting of hydrogen and fluorine with an anhydrous solvent is a

member selected from the group solvent consisting of
10 dioxane, methylene chloride, and chloroform, containing
dissolved therein from about 10 to about 15 wt% hydrogen
chloride gas, to selectively hydrolyze the ester groups
at C-16 and C-17; reacting said hydrolyzed product at
room temperature with an aldehyde is a member selected
15 from the group consisting of



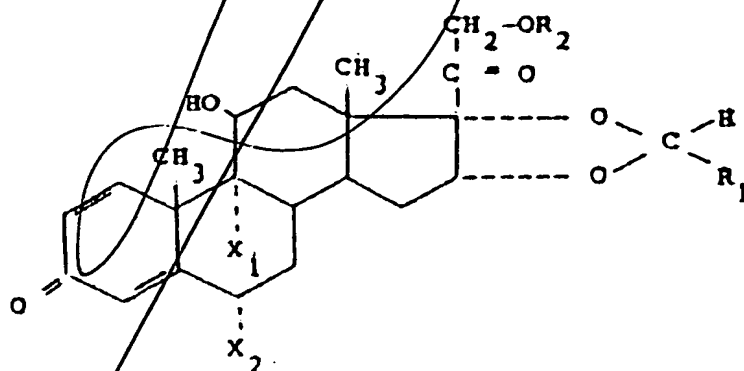
to form the corresponding ketals between said C-16 and C-
17, said reaction being conducted in the presence of a
perchloric acid catalyst to obtain a mixture of epimers
of the compound of claim 1 wherein the S-R epimer
20 proportions are in the range from about 40:60 to about
60:40.

5. The process of claim 4 including the added
step of recrystallizing said product from a mixture of
ethanol and acetone.

6. The process according to claim 5 wherein said ethanol/acetone mixture is in the proportion of about 5 parts by volume of ethanol to about 3 parts by volume of acetone.

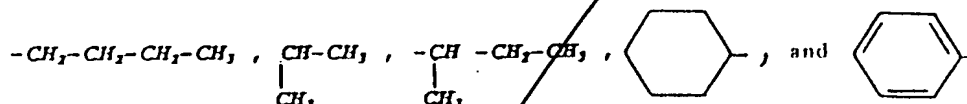
7. The process according to claim 5 wherein about 16 ml of said ethanol/acetone mixture is used for every 1 gm of product.

8. A process for the preparation of compounds of formula

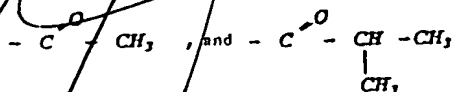


in which the said formula represents the S epimer corresponding to the asymmetric center at C-22 wherein:

5 R_1 is a member selected from the group consisting of



R_2 is a member selected from the group consisting of



and wherein X_1 and X_2 may be the same or different and each is a member selected from the group consisting of hydrogen and fluorine, the steps comprising the
10 hydrolysis-ketalization of compounds of formula

~~$\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \overset{\text{O}}{\underset{\text{H}}{\parallel}}\text{C}$~~ , $\text{CH}_3 - \underset{\text{CH}_3}{\underset{|}{\text{CH}}} - \overset{\text{O}}{\underset{\text{H}}{\parallel}}\text{C}$

$\text{CH}_3 - \text{CH}_2 - \underset{\text{CH}_3}{\underset{|}{\text{CH}}} - \overset{\text{O}}{\underset{\text{H}}{\parallel}}\text{C}$, and $\text{Cyclohexyl} - \overset{\text{O}}{\underset{\text{H}}{\parallel}}\text{C}$, and $\text{Phenyl} - \overset{\text{O}}{\underset{\text{H}}{\parallel}}\text{C}$

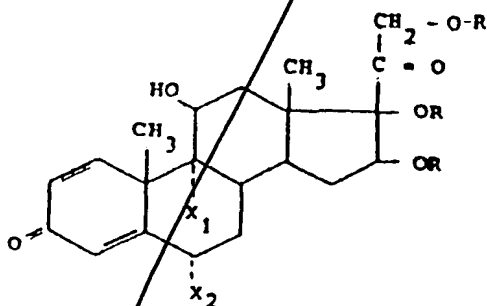
20 to form the corresponding ketals between said C-16 and C-17, said reaction being conducted in the presence of a p-toluensulfonic acid catalyst to obtain the (22s)-epimer of the compound of claim 1.

9. The process of claim 8 including the added step of recrystallizing said product from a mixture of ethanol and acetone.

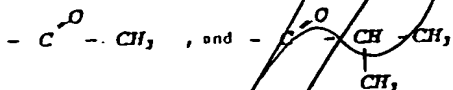
10. The process according to claim 9 wherein said ethanol/acetone mixture is in the proportion of about 5 parts by volume of ethanol to about 3 parts by volume of acetone.

11. The process according to claim 9 wherein about 16 ml of said ethanol/acetone mixture is used for every 1 gm of product.

12. An intermediate compound for the preparation of compounds according to claim 1, characterized by the formula



wherein R is a member selected from the group consisting
5 of



13. An anti-inflammatory drug corresponding to
the novel composition of claim 1.

14. A therapeutic application of a compound
according to claim 1 based on anti-inflammatory
pharmacologic activity and characterized by:

5 Low systemic glucocorticoid effect;
Topical pharmacologic activity greater than
reference standards;
Therapeutic indexes above those found for
reference compounds.

15. A drug with topical glucocorticoid
pharmacologic activity, comprising a composition
according to claim 1.

16. A method for the treatment and control of inflammatory conditions in mammals, including humans, characterized by the topical administration of an effective dose of the compound according to claim 1.

add
a3

add
or